

Work Order ID 139816

139816

Page 1

Wednesday, December 09, 2015 10:04:46 A

Item ID: D4017-7 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib
Start Date: 12/9/2015 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 12/9/2015 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: MCS Date: DEC 09 2015 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4017	E

100		0.00							
100									
Large Fab	Memo	0.00							
Large Fab	1- Cut tube as per dwg D4017 2- Deburr and remove identify marks								
110	QC6- Inspect dimensions to drawing	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location: <u>WIA</u>	0.00							
120									
Packaging	Memo	0.00							
Packaging	LOCATION: WA004								

12x CC 15-12-11

12x DAS
43
9-89 DEC 14 2015

12x CC 15-12-11

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Work Order ID 139816***139816***

Page 2

Wednesday, December 09, 2015 10:04:46 A

Item ID: D4017-7 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib
Start Date: 12/9/2015 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 12/9/2015 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC21- Final Inspection - Work Order Release

0.00

130

QC

Memo

0.02

Quality Control

MLJ DEC 14 2015

MLJ DEC 14 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, December 09, 2015 10:04:50 AM

Page 1

Work Order ID: 139816

139816

Parent Item: D4017-7

D4017-7

Parent Item Name: Rib

Start Date: 12/9/2015

Required Date: 12/9/2015

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP RevA: new issue DD 09.11.26 verified by:EC IPP Rev:B as
per dwg RevA DD 10.03.06 verified by:EC IPP Rev:C as per dwg RevB
DD 10.04.16 verified by:EC IPP Rev:D as per dwg revC DD 10.08.18
verified by:EC IPP Rev:E 11.01.18 chg qc5 to 6 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304TS0.750W.049

Purchased

No

100

f

870.1588

0.0675

0.852632

M304TS0 750W 049

CL 15-12-11

304 SQ Tube .75x.75x.049W

Location

Loc Qty

Loc Code

WA004

870.158768

M131868

1.104368

M132744

59.5184

M133163

198

M133417

11.536

M133762

600

(T)

DQA: _____ Date: _____

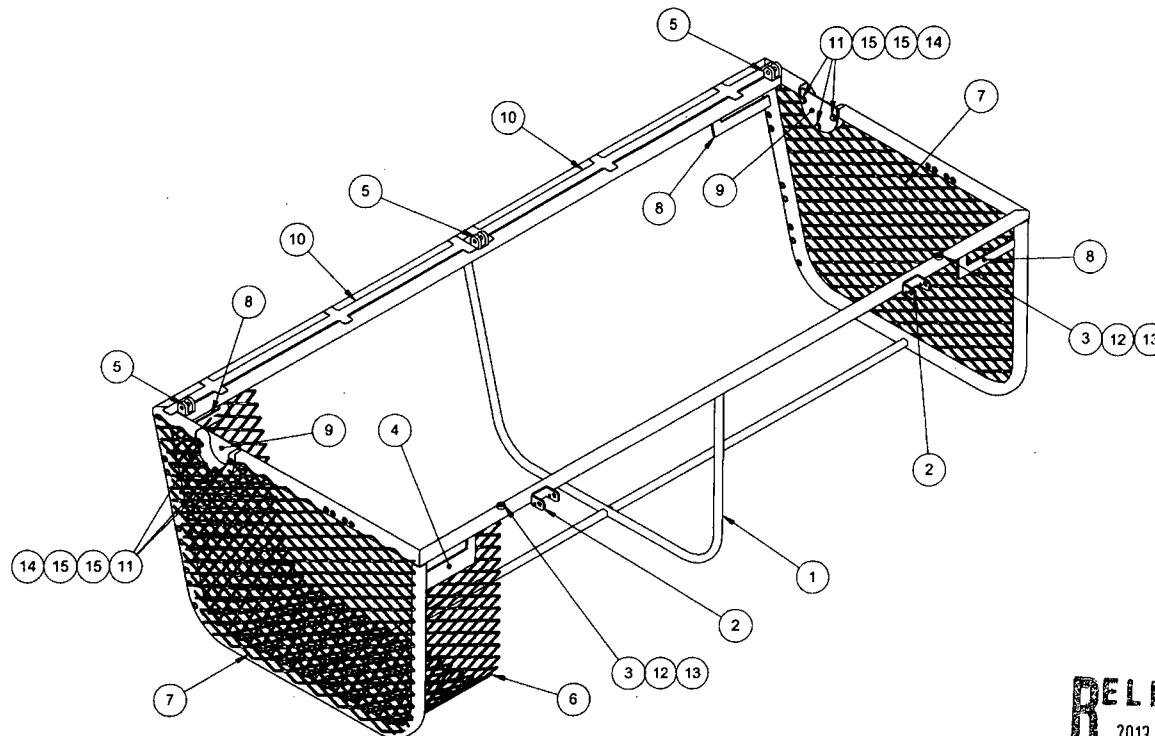
**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4017-041	SHORT BASKET ASSY (350)
1	1	D4017-101	TUBULAR ASSY (350 SHORT BASKET)
2	2	D2581	MOUNTING BRACKET
3	2	D2931	BUMPER
4	1	D3913-15	WIDE HANDLE PLATE
5	3	D4016-1	HINGE HALF, BASE
6	1	D4020-3	MESH (350 BASKET SHORT BASE)
7	2	D4020-11	END MESH, BASKET
8	3	D4021-1	HANDLE PLATE
9	2	D4021-5	BLANKING PLATE
10	2	D4672-3	BLANKING PLATE
11	6	AN3-10A	BOLT, MACHINE
12	2	AN960JD8	WASHER
13	2	MS20600AD4W3	RIVET, BLIND, PAN-HEAD
14	6	MS21042L3	NUT, SELF-LOCKING
15	12	NAS1149F0332P	WASHER



D4017-041 SHORT BASKET BASE ASSY (350)
(MESH SHOWN LOCALLY FOR CLARITY)

RELEASED
2013-08-16

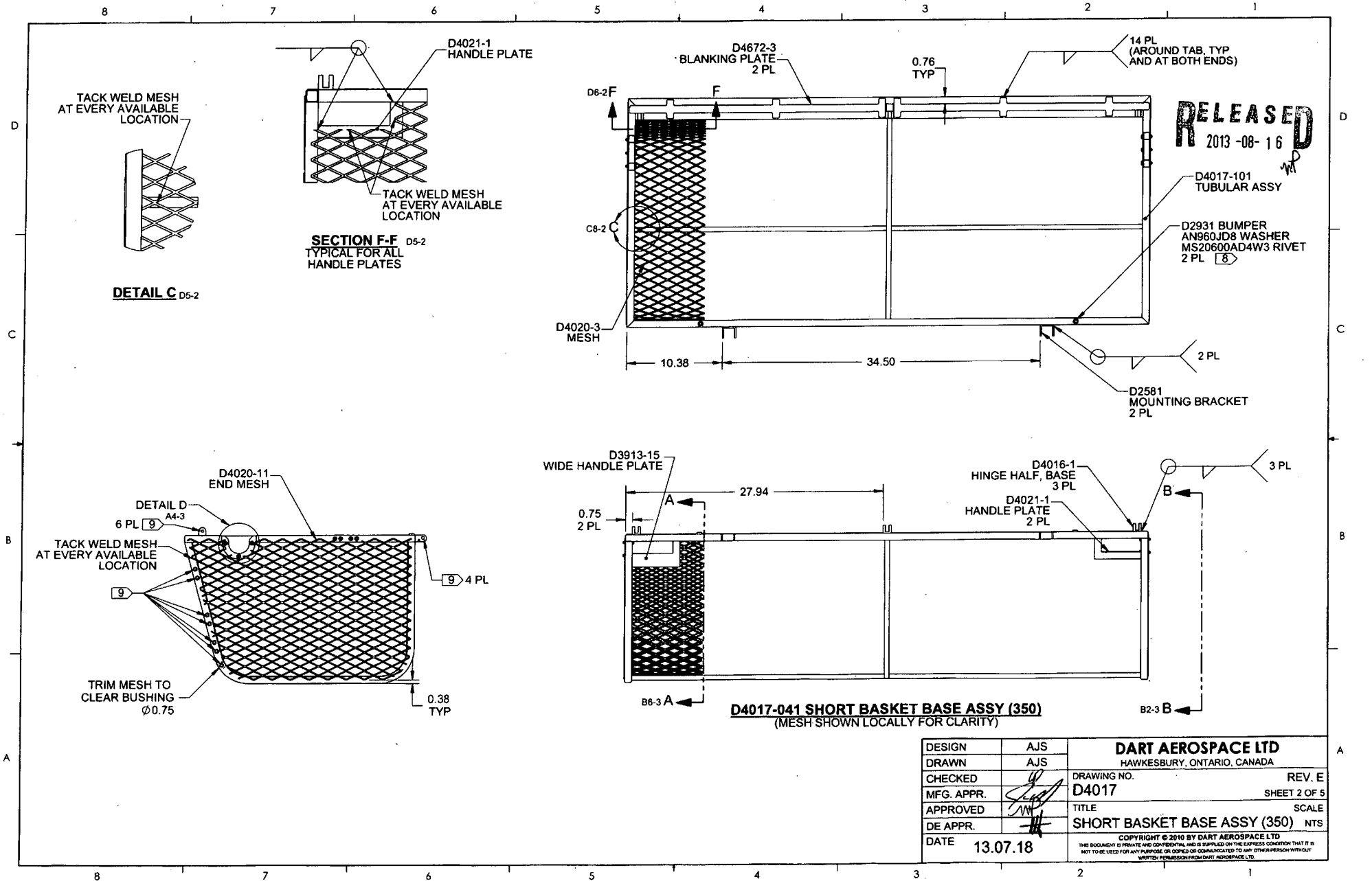
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER
NO. *139816-ML*
15-12-09

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 28.8 lbs APPROX
- 8) INSTALL AFTER FINISH
- 9) MASK HOLES PRIOR TO POWDER COAT
- 10) WELD PER DART QSI 004

E	PICTORIAL UPDATE TO MULTIPLE VIEWS FOR CHANGES TO D4034-043. A4-4 28.13 DIM IS NOW REF. REASON: PAR12-197.	AJS	13.07.18
D	ADD D4672-3 (ZN C5-1, D4-1, D6-1, D3-2, AND D4-2). REASON: PAR12-197.	MB	12.06.18
C	ITEM #4 NOW INSTALLED OUTBOARD (C4-1, C5-1, B5-2 AND D6-2). REASON: ELIMINATE INTERFERENCE PREVENTING INSTALLATION OF RECEIVER ASSEMBLIES.	MB	10.07.23
B	QTY 1 D4021-1 REPLACED WITH QTY 1 D3913-15; AN3-10A BOLT WAS AN3C10A; NAS1149F0332P WASHER WAS NAS1149C0332R; SECTION F-F UPDATED (D6-2); ITEMS RENUMBERED; DETAIL D UPDATED (A4-3)	JPH	10.03.25
A	NEW ISSUE	AJS	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D4017	SHEET 1 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SHORT BASKET BASE ASSY (350)	NTS
DATE	13.07.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS COMPLY THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



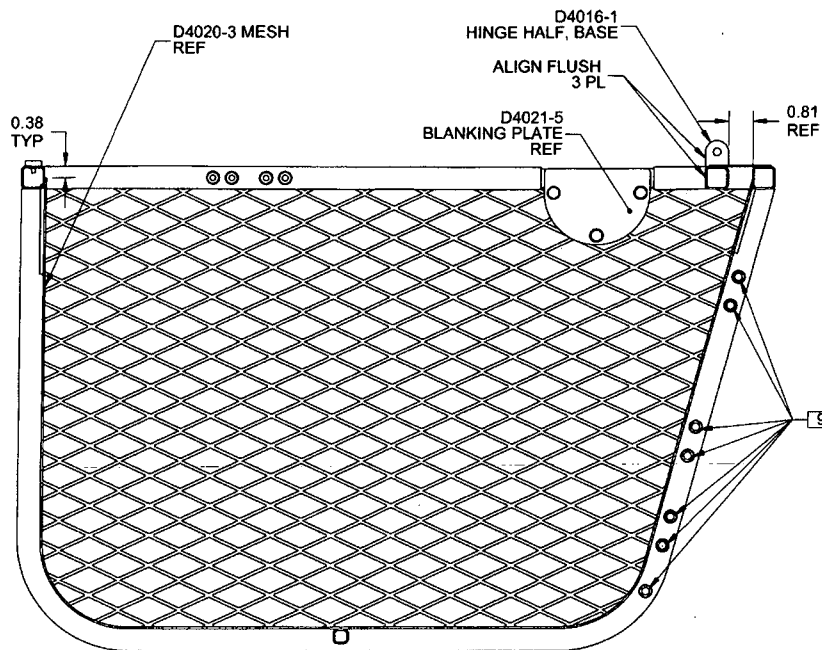
8 7 6 5 4 3 2 1

D

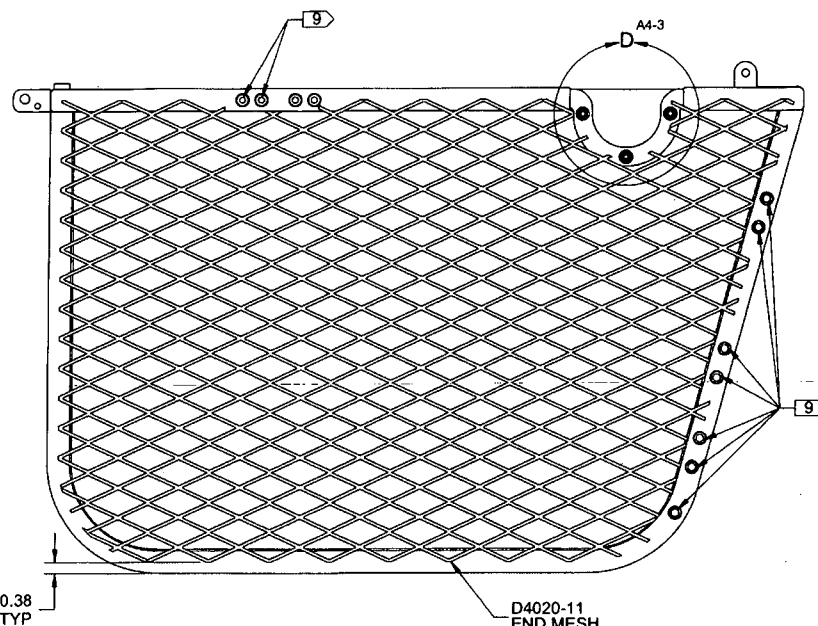
C

B

A



SECTION A-A A5-2



VIEW B-B

A2-2

8
D4021-5
BLANKING PLATE

AN3-10A BOLT, MACHINE
NAS1149F0332P WASHER, 2X
MS21042L3 NUT
3 PL

TRIM MESH LOCALLY
Ø0.50 - Ø0.60
TO CLEAR FASTENERS

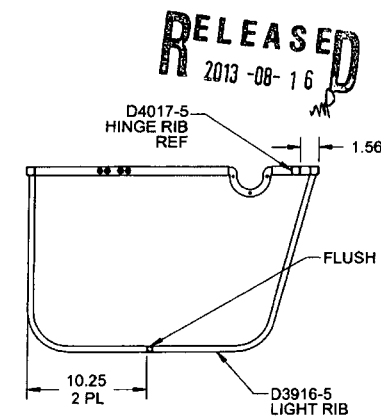
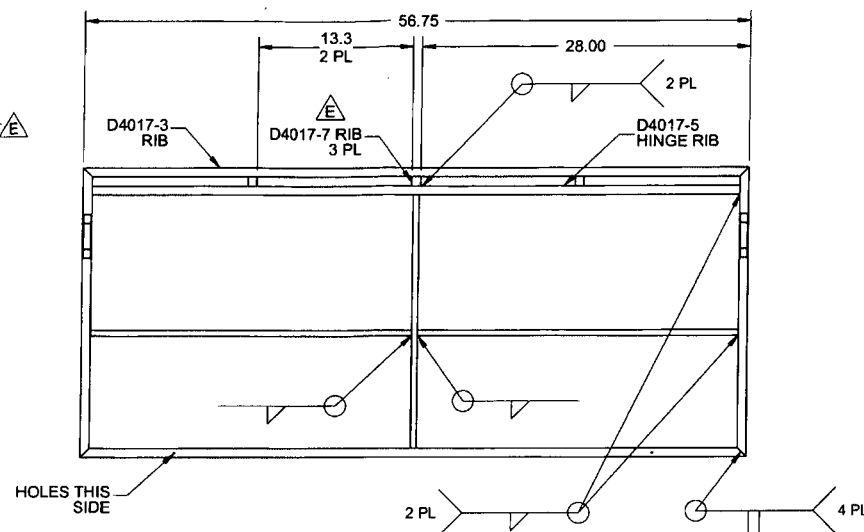
DETAIL D D1-3
B7-2

RELEASED
2013-08-16
MP

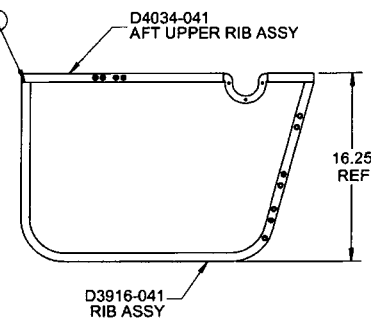
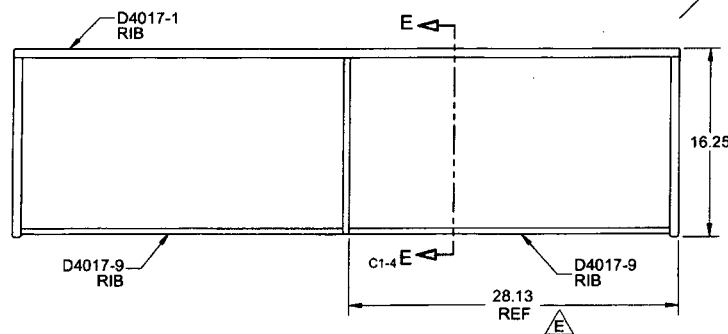
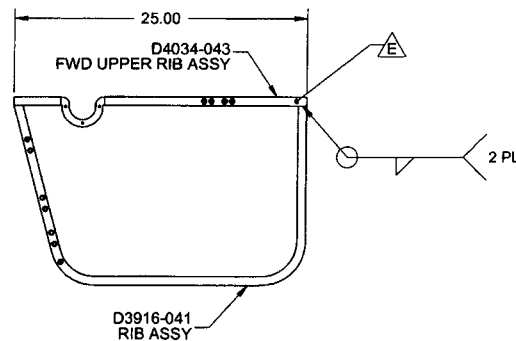
DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UP	DRAWING NO.	REV. E
MFG. APPR.		D4017	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SHORT BASKET BASE ASSY (350) NTS	
DATE	13.07.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1

ITEM	QTY -101	P/N	DESCRIPTION
	X	D4017-101	TUBULAR ASSY (350 SHORT BASKET)
1	1	D4017-1	RIB
2	1	D4017-3	RIB
3	1	D4017-5	HINGE RIB
4	3	D4017-7	RIB
5	2	D4017-9	RIB
6	1	D3916-5	LIGHT RIB
7	2	D3916-041	RIB ASSY
8	1	D4034-041	AFT UPPER RIB ASSY
9	1	D4034-043	FWD UPPER RIB ASSY



SECTION E-E A4-4



NOTES:

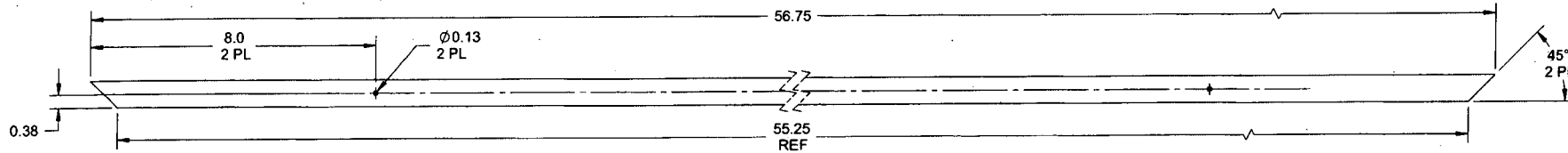
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 15.38 lbs
- 8) TOLERANCE FOR XX.XX DIMENSIONS ± 0.06 FOR D4017-101
- 9) WELD PER DART QSI 004

8 D4017-101 TUBULAR ASSY (350 SHORT BASKET)

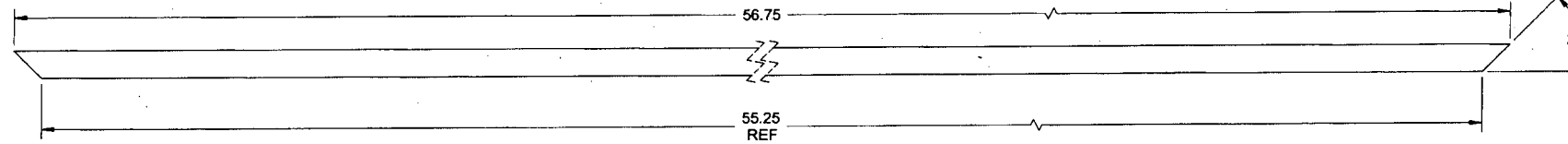
DESIGN	AJS	DART AEROSPACE LTD
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	DRAWING NO. REV. E
MFG. APPR.	<i>[Signature]</i>	D4017 SHEET 4 OF 5
APPROVED	<i>[Signature]</i>	TITLE SCALE
DE APPR.	<i>[Signature]</i>	SHORT BASKET BASE ASSY (350) NTS
DATE	13.07.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

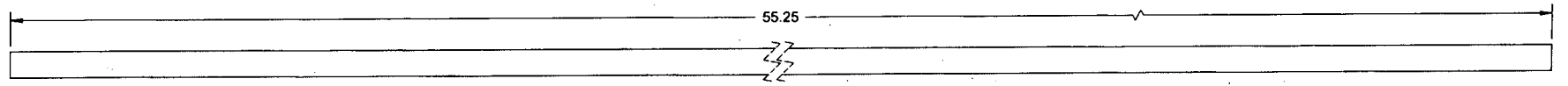
8 7 6 5 4 3 2 1



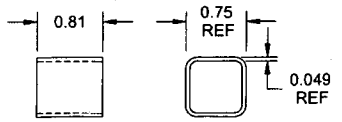
D4017-1 RIB



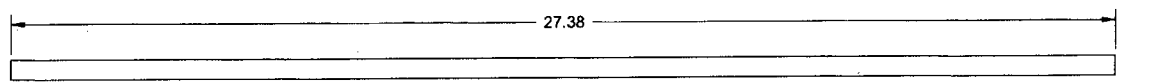
D4017-3 RIB



D4017-5 HINGE RIB



D4017-7 RIB



D4017-9 RIB

RELEASED
2013-08-16

- NOTES:**
- 1) MATERIAL -1 THRU -7: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL
PER ASTM A554 OR ASTM A269 MILL FINISH
REF DART SPEC. M304TS0.750W.049
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: SEE ASSEMBLED WEIGHTS

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D4017	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SHORT BASKET BASE ASSY (350)	NTS
DATE	13.07.18	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1